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1    **CLAIMS**

2

3        1.    A method, comprising:

4            generating an image of an operating system with a host computing device;

5            communicating the image of the operating system to a software

6            development peripheral;

7            executing the operating system corresponding to the image with the

8            software development peripheral;

9            communicating information generated by the operating system to the host

10           computing device; and

11           displaying the information generated by the operating system with the host

12           computing device.

13

14        2.    A method as recited in claim 1, further comprising recognizing a

15            configuration identification of the software development peripheral with a cross-

16            platform development component of the host computing device.

17

18        3.    A method as recited in claim 1, wherein generating includes

19            generating the image of the operating system with a cross-platform development

20            component of the host computing device.

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1           4. A method as recited in claim 1, further comprising recognizing a  
2 configuration identification of the software development peripheral with a cross-  
3 platform development component of the host computing device, and wherein  
4 generating includes generating the image of the operating system with the cross-  
5 platform development component, the image of the operating system  
6 corresponding to the configuration identification of the software development  
7 peripheral.

8  
9           5. A method as recited in claim 1, further comprising debugging the  
10 information generated by the operating system with a cross-platform development  
11 component of the host computing device.

12  
13           6. A method as recited in claim 1, further comprising connecting the  
14 software development peripheral to a network via a network communication driver  
15 of the host computing device, the network communication driver communicatively  
16 linked with the network and with a virtual network communication driver of the  
17 software development peripheral.

18  
19           7. A method as recited in claim 1, wherein communicating includes  
20 communicating the information generated by the operating system to the host  
21 computing device via a debug transport.

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1           **8.**    A method as recited in claim 1, wherein communicating includes  
2 communicating the information generated by the operating system to the host  
3 computing device with a virtual device driver of the software development  
4 peripheral.

5  
6           **9.**    A method as recited in claim 1, wherein communicating includes  
7 communicating image data generated by the operating system to a virtual  
8 input/output system of the host computing device with a virtual device driver of  
9 the software development peripheral.

10  
11           **10.**   A method as recited in claim 1, further comprising receiving a  
12 keyboard input with the software development peripheral from a virtual  
13 input/output system of the host computing device, the keyboard input generated  
14 with a keyboard connected to the host computing device.

15  
16           **11.**   A method as recited in claim 1, further comprising receiving a  
17 pointing device input with the software development peripheral from a virtual  
18 input/output system of the host computing device, the pointing device input  
19 generated with a pointing device connected to the host computing device.

1           **12.** A software development peripheral performing a method,  
2 comprising:

3           providing a configuration identification of the software development  
4 peripheral to an operating system development component of a host computing  
5 device;

6           receiving an image of an operating system, the image of the operating  
7 system generated with the operating system development component;

8           executing the operating system corresponding to the image; and

9           communicating information generated by the operating system to the  
10 operating system development component.

11  
12           **13.** A method as recited in claim 12, wherein receiving includes  
13 receiving an image of the operating system that corresponds to the configuration  
14 identification of the software development peripheral.

15  
16           **14.** A method as recited in claim 12, further comprising  
17 communicatively linking to a network with a virtual network communication  
18 driver, the virtual network communication driver communicatively linked with a  
19 network communication driver of the host computing device.

20  
21           **15.** A method as recited in claim 12, wherein communicating includes  
22 communicating the information generated by the operating system to the host  
23 computing device with a virtual device driver via a debug transport.

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1           **16.**    A method as recited in claim 12, wherein communicating includes  
2 communicating the information generated by the operating system to a virtual  
3 input/output system of the host computing device with a virtual device driver.

4  
5           **17.**    A method as recited in claim 12, further comprising communicating  
6 image data generated by the operating system to the host computing device for  
7 display.

8  
9           **18.**    A method as recited in claim 12, further comprising communicating  
10 image data generated by the operating system to a virtual input/output system of  
11 the host computing device with a virtual display device driver for display at the  
12 host computing device.

13  
14           **19.**    A method as recited in claim 12, further comprising receiving a  
15 keyboard input that is generated with a keyboard connected to the host computing  
16 device.

17  
18           **20.**    A method as recited in claim 12, further comprising receiving a  
19 pointing device input that is generated with a pointing device connected to the host  
20 computing device.

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1           **21.** One or more computer-readable media comprising computer  
2 executable instructions that, when executed, direct a software development  
3 peripheral to perform a method comprising:

4           receiving an image of an operating system from a host computing device,  
5 the image of the operating system corresponding to a configuration identification  
6 of the software development peripheral;

7           executing the operating system corresponding to the image; and

8           communicating information generated by the operating system to an  
9 operating system development component of the host computing device.

10  
11           **22.** One or more computer-readable media as recited in claim 21,  
12 wherein communicating includes communicating the information generated by the  
13 operating system to the operating system development component via a debug  
14 transport.

15  
16           **23.** One or more computer-readable media as recited in claim 21,  
17 wherein the method further comprises communicating peripheral device output  
18 information generated by the operating system to a virtual input/output system of  
19 the host computing device with a virtual device driver.

20  
21           **24.** One or more computer-readable media as recited in claim 21,  
22 wherein the method further comprises communicating image data generated by the  
23 operating system to a virtual input/output system of the host computing device for  
24 display.

1           **25.** One or more computer-readable media as recited in claim 21,  
2 wherein the method further comprises communicating image data generated by the  
3 operating system to a virtual input/output system of the host computing device  
4 with a virtual display device driver.

5  
6           **26.** A system, comprising:  
7 a host computing device configured to generate an image of an operating  
8 system; and  
9 a software development peripheral configured to:  
10 receive the image of the operating system from the host computing  
11 device;  
12 execute the operating system corresponding to the image; and  
13 communicate information generated by the operating system to the host  
14 computing device for display.

15  
16           **27.** A system as recited in claim 26, wherein the host computing device  
17 includes a first type of processor to generate the image of the operating system,  
18 and wherein the software development peripheral is configured to execute the  
19 operating system on a second type of processor, the second type of processor  
20 being different than the first type of processor.

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1           **28.**     A system as recited in claim 26, wherein the host computing device  
2 is further configured to recognize the software development peripheral as a plug  
3 and play device when the software development peripheral is communicatively  
4 linked with the host computing device.

5  
6           **29.**     A system as recited in claim 26, wherein the host computing device  
7 includes a cross-platform development component configured to recognize a  
8 configuration identification of the software development peripheral when the  
9 software development peripheral is communicatively linked with the host  
10 computing device.

11  
12           **30.**     A system as recited in claim 26, wherein the host computing device  
13 includes a cross-platform development component configured to generate the  
14 image of the operating system.

15  
16           **31.**     A system as recited in claim 26, wherein the host computing device  
17 includes a cross-platform development component configured to recognize a  
18 configuration identification of the software development peripheral when the  
19 software development peripheral is communicatively linked with the host  
20 computing device, and wherein the cross-platform development component is  
21 further configured to generate the image of the operating system corresponding to  
22 the configuration identification of the software development peripheral.



1           **32.**     A system as recited in claim 26, wherein the host computing device  
2 includes a cross-platform development component configured to debug the  
3 information generated by the operating system.

4  
5           **33.**     A system as recited in claim 26, wherein the host computing device  
6 and the software development peripheral are communicatively linked via a debug  
7 transport.

8  
9           **34.**     A system as recited in claim 26, wherein the host computing device  
10 and the software development peripheral are communicatively linked via a  
11 universal serial bus connection.

12  
13           **35.**     A system as recited in claim 26, wherein the software development  
14 peripheral includes a virtual device driver configured to route the information  
15 generated by the operating system to the host computing device, and wherein the  
16 host computing device includes a virtual input/output system configured to receive  
17 the information generated by the operating system.

18  
19           **36.**     A system as recited in claim 26, wherein the host computing device  
20 includes a virtual input/output system configured to receive the information  
21 generated by the operating system and route the information to a display device.

22  
23           **37.**     A system as recited in claim 26, wherein the software development  
24 peripheral is further configured to communicate image data generated by the  
25 operating system to the host computing device via a virtual display device driver.

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2       **38.**     A system as recited in claim 26, wherein the software development  
3 peripheral is further configured to communicate image data generated by the  
4 operating system to the host computing device via a virtual display device driver,  
5 and wherein the host computing device includes a virtual input/output system  
6 configured to receive the image data and route the image data to a display device.

7  
8       **39.**     A system as recited in claim 26, wherein the software development  
9 peripheral is further configured to connect to a network via a network  
10 communication driver of the host computing device, the network communication  
11 driver communicatively linked with the network and with a virtual network  
12 communication driver of the software development peripheral.

13  
14       **40.**     A system as recited in claim 26, wherein the host computing device  
15 includes a virtual input/output system configured to route a keyboard input to the  
16 software development peripheral.

17  
18       **41.**     A system as recited in claim 26, wherein the host computing device  
19 includes a virtual input/output system configured to route a pointing device input  
20 to the software development peripheral.

1           **42.**    A software development peripheral, comprising:  
2           a memory component configured to maintain an image of an operating  
3 system received from a host computing device;  
4           a processor configured to execute the operating system corresponding to the  
5 image; and  
6           a virtual device driver configured to communicate information generated by  
7 the operating system to the host computing device.

8  
9           **43.**    A software development peripheral as recited in claim 42, further  
10 comprising a configuration identification to identify the software development  
11 peripheral to the host computing device when the software development peripheral  
12 is communicatively linked with the host computing device.

13  
14           **44.**    A software development peripheral as recited in claim 42, further  
15 comprising a configuration identification to identify the software development  
16 peripheral to a cross-platform development component of the host computing  
17 device when the software development peripheral is communicatively linked with  
18 the host computing device.

19  
20           **45.**    A software development peripheral as recited in claim 42, wherein  
21 the virtual device driver communicates the information generated by the operating  
22 system to the host computing device for display.

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1           **46.**    A software development peripheral as recited in claim 42, wherein  
2 the virtual device driver is a virtual display device driver configured to  
3 communicate image data generated by the operating system to the host computing  
4 device for display.

5  
6           **47.**    A software development peripheral as recited in claim 42, wherein  
7 the virtual device driver communicates the information generated by the operating  
8 system to be debugged at the host computing device.

9  
10          **48.**    A software development peripheral as recited in claim 42, wherein  
11 the virtual device driver communicates the information generated by the operating  
12 system to the host computing device via a debug transport.

13  
14          **49.**    A software development peripheral as recited in claim 42, wherein  
15 the virtual device driver communicates the information generated by the operating  
16 system to the host computing device via a universal serial bus connection.

17  
18          **50.**    A software development peripheral as recited in claim 42, wherein  
19 the virtual device driver communicates the information generated by the operating  
20 system to a virtual input/output system of the host computing device.

1           **51.**    A software development peripheral as recited in claim 42, further  
2 comprising a virtual network communication driver configured to connect to a  
3 network via a network communication driver of the host computing device, the  
4 network communication driver communicatively linked with the network.

5  
6           **52.**    A software development peripheral as recited in claim 42, wherein  
7 the processor is further configured to receive input from a keyboard that is  
8 connected to the host computing device.

9  
10          **53.**    A software development peripheral as recited in claim 42, wherein  
11 the processor is further configured to receive input from a pointing device that is  
12 connected to the host computing device.

13  
14          **54.**    A software development peripheral as recited in claim 42, further  
15 comprising an expansion component configured to couple a peripheral device with  
16 the software development peripheral.

17  
18          **55.**    A software development peripheral as recited in claim 42, further  
19 comprising an expansion component configured to couple a display device with  
20 the software development peripheral.

21  
22          **56.**    A software development peripheral as recited in claim 42, further  
23 comprising an expansion component configured to couple an input device with the  
24 software development peripheral.  
25

1       **57.**     A software development peripheral, comprising:  
2       means for receiving an image of an operating system, the image of the  
3     operating system generated with a host computing device;  
4       means for executing the operating system corresponding to the image; and  
5       means for communicating information generated by the operating system to  
6     a virtual input/output system of the host computing device.

7  
8       **58.**     A software development peripheral as recited in claim 57, further  
9     comprising means for communicating image data generated by the operating  
10    system to the host computing device for display.

11  
12       **59.**     A software development peripheral as recited in claim 57, further  
13    comprising means for receiving a keyboard input that is generated with a keyboard  
14    connected to the host computing device.

15  
16       **60.**     A software development peripheral as recited in claim 57, further  
17    comprising means for receiving a pointing device input that is generated with a  
18    pointing device connected to the host computing device.